AMERICAN DYNAMICS

Video Systems

System V Matrix Switcher/ Controller System

AD2150 SERIES

FEATURES

- *Compact, self-contained microprocessor-based matrix*
- *32 video inputs by 5 video outputs*
- *Can be ordered as a standalone unit or with a choice of user interfaces (AD2079 keyboard, ADTTE keyboard or Excalibur GUI)*
- *Integral AD Manchester code distributor*
- *Provides fixed and variable-speed pan/tilt and dome control*
- *Integral menu-driven setup*
- *PC programming package supplied*
- *Three flexible RS-232 inputs, expandable to 12*
- *On-screen display includes video input number and title, monitor status, and time & date*
- *Individual monitor tours*
- *24 Universal tours*
- *35 Event timers*
- *8 Salvos*
- *Automatic alarm call-up of up to 128 alarm inputs*
- *Five alarm display modes*
- *Five alarm clearance methods*
- *System partitioning of inputs, outputs, and keyboards*
- *Rack mount kit included*

The microprocessor based AD2150 is a compact, self-contained, video matrix switcher/controller system perfectly suited for small to medium-size CCTV installations such as industrial sites, office buildings and schools. The AD2150 allows a single operator to easily manage a CCTV system consisting of up to 32 video inputs and five video outputs. The video inputs can include fixed cameras, dome cameras, pan/tilts, motorized lenses, and auxiliary outputs. The video outputs can include up to five monitors, VCRs, or video accessories.

Each of the system's monitors is capable of operator-defined camera tours/sequences. Each monitor is also capable of displaying any of 24 Universal tours.

The AD2150 is supplied with a choice of user interfaces (the ADTTE keyboard, the AD2079 keyboard, or the Excalibur GUI). The unit has four AD Manchester code outputs, three RS-232 ports, 8 programmable alarm inputs, and one alarm output. These standard features can be expanded by the addition of peripheral devices.

The system has selectable on-screen displays that insert date, time, video input number, 16-character video input title and monitor status.

The AD2150 is a powerful, self-contained video matrix switcher/controller

FEATURES

Site Control

Users can control fixed or variable-speed domes, pan/tilts, motorized lenses, auxiliary outputs and 72 Presets per video input at suitably-equipped camera sites.

System Setup

The system features can be programmed through integral on-screen menus or via PC-based setup software.

RS-232 Communications

Three ports allow standard communication with keyboards, alarm interface units, computers, etc. Each port is individually programmable for data rates of 1200, 2400, 4800, or 9600 baud. Each port can expand to four ports with the optional AD1981 or AD2081 port expanders. This expands the maximum available RS-232 ports to 12.

Selectable On-Screen Display

Each monitor can display the date/time, video input number, 16-character user-definable video input title and monitor status. Three date formats are provided: MM/DD/YY, DD/MM/YY or YY/MM/DD. The on-screen display uses white characters with black outline to optimize viewing on diverse contrast scenes. The user can turn the following displays on and off: video input number and monitor status, the video input title, and date/time displays. Text controls include incremental horizontal/vertical positioning and display brightness.

Monitor Tours

An operator can define a tour for any video output at any time. These tours provide 64 positions for insertion of video inputs—each with an individual dwell time. The same video input may be inserted in multiple positions. Tours can be run forward or in reverse. They can include the same video input multiple times.

Video inputs partitioned from a monitor are automatically skipped.

Universal Tours

Twenty four tours of video inputs or salvos may be established for call-up to monitors at any time. Each tour provides 64 positions for insertion of video inputs — each with an individual dwell time, a Preset, and an auxiliary action. Tours can be run forward or in reverse. They can include the same video input multiple times and/or multiple Presets from a single camera.

Tours can be connected together to form sequences of more than 64 video inputs. Video inputs partitioned from a monitor are automatically skipped.

Event Timers

There are 35 user-programmable times available. These times may be independently designated for multiple days of the week to automatically call up Universal Tours to video output(s).

Salvo Switching

Salvo switching allows multiple video inputs to be called simultaneously to multiple contiguous video outputs. Eight individual groups (Salvos), consisting of up to five video inputs (each with a Preset and/or auxiliary function) can be called either manually or as part of a Universal Tour.

Automatic Alarm Callup—128 Alarm Inputs

Alarm inputs can be programmed to call any video input or group of video inputs to any one or more video outputs. A Preset, auxiliary action, and individual dwell time may be defined for each alarm input. Any of 25 alarm display/clearance methods may be selected independently for each video output.

Alarm Display Modes

The alarm display mode is user-selectable for each video group.

- *Hold:* Displays initial alarm until cleared. Queues subsequent alarms.
- *Sequence:* Sequences multiple alarms with individual dwell times until cleared.
- *Sequence and Display:* Displays initial alarm on one video output until alarm is cleared. Subsequent alarms are sequenced on a second output (while they are active).
- *Block Hold:* Alarms are displayed on blocks (groups) of video outputs. Any number of blocks may be programmed with up to five video outputs in each individual block.
- *Block Sequence:* Alarms are displayed or sequenced on blocks (groups) of video outputs. Any number of blocks may be programmed with up to five video outputs in each individual block.

Alarm Clearance

The alarm clearance method is user-selectable for each video output.

- *Acknowledge:* Removes an alarm only after the alarm has been manually acknowledged.
- *AutoClear:* Automatically removes an alarm approximately 20 seconds after the input deactivates (if the alarm has not already been manually acknowledged). Manual acknowledgment may be disabled as a security measure.
- *Instant AutoClear:* Automatically removes an alarm when an input deactivates (if the alarm has not already been manually acknowledged). Manual acknowledgment may be disabled as a security measure.

Status output

An RS-232 port may be programmed to output both occurrence of and removal of all alarm events. An alarm event message includes date/time of event, contact number, video input number, video output number and alarm status.

System Partitioning

System flexibility is further enhanced by defining authorized access to keyboards, video inputs, and video outputs. System Partitioning includes the following:

- *Keyboard-to-Monitor Access:* Prevents selected keyboards from accessing selected video outputs.
- *Monitor-to-Camera Access:* Prevents selected video outputs from displaying video from selected video inputs.
- *Keyboard-to-Camera Access:* Prevents selected keyboards from calling or controlling selected video inputs.
- *Keyboard-to-Camera Control Access:* Prevents selected keyboards from controlling remote functions at selected camera sites.

The AD2150 is perfectly suited for small to medium size CCTV installations

SYSTEM ACCESSORIES AND OPTIONAL EQUIPMENT

(For more information on these accessories and equipment, refer to each product's individual data sheet.)

AD2150SW12 PC Programming Package

For use with MS-DOS™ computers, this integral software package provides simplified system setup, uploading/downloading of system setups, and a monitor status display via RS-232. All programmed data files can be stored on disk.

AD2079, AD2079R, AD2079X, AD2079RX, ADTTE Keyboards CE

Full system keyboards allow for video switching, pan/tilt control, dome control, auxiliary control, and system programming. The keyboards support bi-directional communication with the system CPU via RS-232 ASCII commands.

AD1676B, AD1676BX Keyboards

The operator keyboard allows for video switching, pan/tilt control, dome control, and auxiliary control on up to five contiguous system monitors. The keyboard supports simplex communication with the system via RS-232 ASCII commands.

AD5500 Excalibur Graphical System Manager

Provides enhanced performance of the system by allowing icon-driven system and alarm management via mouse or touch-screen. Icons of cameras, etc., are overlaid onto detailed floor plans of your facility. The software operates on a standard PC with Windows™ operating system. The PC communicates directly with the system CPU via RS-232 (may require multiple ports).

AD1981, AD1981-X, AD2081, AD2081X Port Expander

Expands one RS-232 port on a system CPU into four ports. This provides connections to multiple system keyboards.

AD1691, ADS1691FX Manchester Code Distributor CE

Interfaces with the matrix switcher/controller via AD Manchester Code and provides 64 AD Manchester code outputs for use by receiver/drivers or suitably-equipped pan/tilts and domes.

AD2083-02A, ADS2083-02AX SEC RS-422 Code Distributor CE

Interfaces with the matrix switcher/controller via AD Manchester Code and provides 16 SEC RS-422 control code outputs for use by SpeedDome® series domes.

AD Manchester Code Receiver/Drivers, Pan/Tilts, and Domes

These components are supported directly or through the use of the AD1691 series Manchester Code Distributor.

AD2096A, ADS2096X Alarm Interface CE

Supervises up to 64 alarm inputs and provides RS-232 ASCII alarm commands to the system CPU. Alarm inputs can be programmed to call any video input, display any Preset, or to initiate any auxiliary action. Two units can be cascaded on a single RS-232 line.

AD2031, ADS2031X Switcher Follower CE

Activates relays when designated video inputs are called to designated video outputs. It interfaces with the matrix switcher/controller system and provides up to 32 Form A relays, via AD Manchester Code, that can be grouped in series and addressed to a single video output, or in two groups of 16 relays for two specific video outputs.

AD2033, ADS2033X Auxiliary Follower CE

Activates relays when a specific auxiliary is triggered (either manually or automatically) for an associated video input. Interfaces with matrix switcher/controllers and provides up to 32 Form A relays via AD Manchester code. Multiple units can be cascaded together.

AD1683, AD1683-X Manchester Code PSK Modem

Controls up to eight receiver/drivers over telephone lines or similar audio-type link. Two AD1683 series PSK modems are required per link. A modem in transmit mode converts AD Manchester code for the receiver/drivers from the switcher/controller to the PSK signals. At the remote location, a modem converts the PSK signals back to AD Manchester code for the receiver/drivers.

AD1983, AD1983X Code Converter

Converts AD Manchester code to two bytes of RS-232 control code for transmission on standard RS-232 links. RS-232 receiver/drivers may be connected directly to the link (a separate RS-232 distributor may be required), or a receiving AD1983 Code Converter may be used to convert the signal back to AD Manchester code for use by standard receiver/drivers.

The AD2150 provides large system features in a small table-top unit

SPECIFICATIONS

Model Numbers

AD2150NC32-5	32 video inputs, 5 video outputs, 120 V; No keyboard
AD2150NCX32-5	32 video inputs, 5 video outputs, 230 V; No keyboard
AD2150KB32-5	32 video inputs, 5 video outputs; AD2079 Keyboard (120 V)
ADS2150KBX32-5	32 video inputs, 5 video outputs; AD2079X Keyboard (230 V)
AD2150TT32-5	32 video inputs, 5 video outputs; ADTTE Keyboard (120 V)
ADS2150TTX32-5	32 video inputs, 5 video outputs; ADTTE Keyboard (230 V)
AD2150EX32-5	32 video inputs, 5 video outputs; Excalibur Graphical User Interface (120 V)
ADS2150EXX32-5	32 video inputs, 5 video outputs; Excalibur Graphical User Interface (230 V)

General

Bandwidth	15 MHz
Frequency Response	±1.0 dB up to 10 MHz
S/N Ratio	-55 dB (Vp-p vs. Vrms noise)
Crosstalk	
Adjacent Channels	-55 dB Typical at 3.58 MHz
Input to Input	-70 dB Typical at 3.58 MHz
Differential Phase	1.5° or less
Differential Gain	1.0% or less
Differential Delay	±1.0°
Tilt	0.5% or less
Gain	Unity (±1 dB)
Return Loss (Input/Output)	≥ 40 dB
DC Level (Video Signal)	0 Volts
Switching	Complete switching of crosspoint matrix. EIA RS-170 and NTSC
Switching Speed	< 16 ms (typical)
Keyboard/Receiver Control Time	20 ms (typical)
Non-Volatile Memory	Setup information saved for a minimum of 5 years
On-Screen Displays	Date/Time, Video Input Number, Video Input Title (16 characters max), Monitor Status
Character Set	English

Connections

Video Inputs	0.5 to 2.0 Vp-p, composite BNC
Video Outputs	1 Vp-p, composite BNC
RS-232 Ports	Three 8-Pin Modular RJ-45
2-Wire Control Inputs	Four pairs support existing AD1672 and AD1678 Series Keyboards
Alarms/Relay	One 16-pin connector
AD Manchester Code	Four outputs on one 12-pin connector

Electrical

Supply Voltage	120 VAC, 50/60 Hz
Power	15 watts

Mechanical

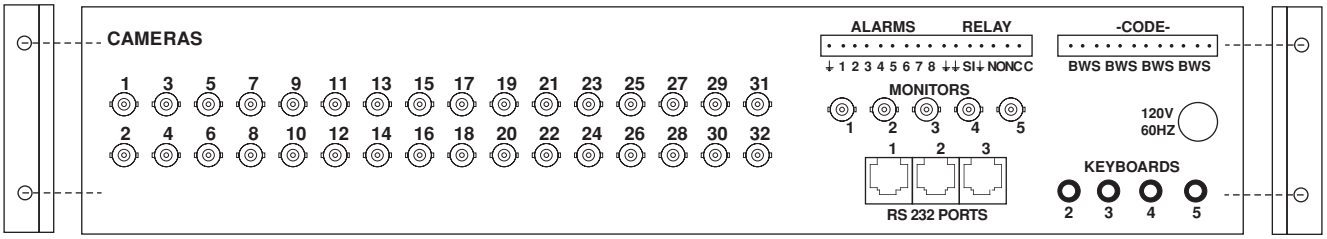
Mounting	Desktop or rack mount
Dimensions (H x W x D)	
Desktop	96 x 432 x 331 mm (3.75 x 17 x 13 in)
Rack mount	96 x 483 x 331 mm (3.75 x 19 x 13 in)
Unit Weight	4.5 Kg (10 lbs)
Color	Black

Environmental

Operating Temperature	5° to 40°C (40° to 104°F)
Humidity	95% RH (non-condensing)

Regulatory

Emissions	FCC Part 15, Subpart B Class A CE: EN55022 Class B
Immunity	CE: EN50082-1
Safety	UL2044 cUL: CSA C22.2 No. 1-94 CE: EN60950



AD2150 (Rear Panel) with Rack Mount Ears

Specifications subject to improvement or change without notice.

Certain product names mentioned herein may be trade names and/or registered trademarks of other companies.

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